

### 3.16 SECTION 4(f) AND 6(f) RESOURCES (PUBLIC PARKS AND RECREATION)

Section 4(f) and 6(f) resources analyzed in this Program EIR/EIS include publicly owned parklands, recreation lands, wildlife and waterfowl refuges, and historic sites that are covered by Section 4(f) of the Department of Transportation (DOT) Act of 1966 and Section 6(f) of the Land and Water Conservation Fund Act of 1965. This section describes the existing Section 4(f) and 6(f) resources within the five project regions and identifies the potential uses of and potential impacts on Section 4(f) and 6(f) resources for each alternative. Since this is a program-level environmental document, the uses of and impacts on Section 4(f) and 6(f) resources are analyzed at a program level.

#### 3.16.1 Regulatory Requirements and Methods of Evaluation

##### A. REGULATORY REQUIREMENTS

###### Section 4(f)

Section 4(f) of DOT Act of 1966 (49 U.S.C. § 303) states the following.

- (a) It is the policy of the United States government that special effort be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.
- (b) The Secretary of Transportation shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the states, in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of lands crossed by transportation activities or facilities.
- (c) The Secretary may approve a transportation program or project (other than any project for a park road or roadway under Section 204 of Title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local officials; or land of an historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area refuge, or site) only if,
  - (1) there is no prudent and feasible alternative to using that land; and
  - (2) the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Similarly, California law requires a state agency that proposes a project which may result in adverse effects on historical resources listed or eligible for listing in the National Register of Historic Places (NHRP) or the California Register of Historical Resources (CRHR) to consult with the State Historic Preservation Office and to identify feasible and prudent measures that will eliminate or mitigate the adverse effects (California Public Resources Code §§ 5024 and 5024.5; CEQA Guidelines § 15064.5.)

###### Section 6(f)

State and local governments often obtain grants through the Land and Water Conservation Fund Act to acquire or make improvements to parks and recreation areas (16 U.S.C. §§ 460-4 through 460-11, September 3, 1964, as amended 1965, 1968, 1970, 1972–1974, 1976–1981, 1983, 1986, 1987, 1990, 1991, 1993–1996). Section 6(f) of the act prohibits the conversion to a non-recreational purpose of property acquired or developed with these grants without the approval of the U.S. Department of the Interior's (DOI's) National Park Service. Section 6(f) directs DOI to ensure that replacement lands of equal value (monetary), location, and usefulness are provided

as conditions to such conversions. Consequently, where such conversions of Section 6(f) lands are proposed for transportation projects, replacement lands must be provided.

California statutes similarly require replacement lands. The California Public Park Preservation Act of 1971 (California Public Resources Code § 5400 *et seq.*) provides that a public agency that acquires public parkland for non-park use must either pay compensation that is sufficient to acquire substantially equivalent substitute parkland or provide substitute parkland of comparable characteristics.

## B. METHOD OF EVALUATION OF IMPACTS

This evaluation of potential impacts on Section 4(f) and 6(f) resources focuses on identifying uses of and historical, cultural, parkland, and wildlife resources under existing conditions, and potential uses of and impacts on these resources under the No Project, Modal, and High-Speed Train (HST) Alternatives. For this program document, the primary goal of the analysis was the identification of Section 4(f) and 6(f) resources on or very close to the proposed HST and Modal Alternative alignment options and the relative potential impacts of the alternatives on these resources. At this stage, it is not practical to study and measure the severity of each potential impact identified. No fieldwork was conducted as part of this analysis. In subsequent project-level analysis, should a decision be made to proceed with the HST Alternative, Section 4(f) and 6(f) resources, potential uses and impacts, and appropriate mitigation measures would be identified in detail.

Various sources were consulted to identify potential resources in each region, including available databases, studies, and other documents. These documents are listed in the references chapter of this document. To identify and quantify the potential impacts by resource type, the improvements included under each alternative (highway and rail alignments, rail stations, and airports) were overlaid on available databases and maps.

Two types of potential impacts on Section 4(f) and 6(f) resources were identified: direct and proximity.

- **Direct Impact:** A physical feature of a proposed improvement would directly intersect with a portion or all of the resource and require the use of property from that resource.
- **Proximity Impact:** A physical feature of a proposed improvement has the potential to impact the resource as a result of its proximity to the resource.

Potential impacts were assigned a qualitative ranking of high, medium, or low based on the proximity of the resource to the centerline of the proposed improvement. The rankings are summarized in Table 3.16-1.

**Table 3.16-1**  
**Rankings for Potential Direct and Proximity Impacts**  
**on Section 4(f) and 6(f) Resources**

Ranking	Distance of Resource from Centerline	Potential Impact
High	0 to 150 ft (0 to 46 m)	Direct
Medium	150 to 450 ft (46 to 137 m)	Proximity
Low	450 to 900 ft (137 to 274 m)	Proximity

### 3.16.2 Affected Environment

#### A. STUDY AREA DEFINED

The study area for the analysis of Section 4(f) and 6(f) resources encompasses the area within 900 ft (274 m) on either side of the centerline of each alignment, and within a 900-ft (274-m) radius of the stations for each alternative.

Because the proposed HST system would cross urbanized and developed areas, a variety of Section 4(f) and 6(f) resources could be affected. The proposed HST system alignment options were developed with the intent of avoiding these resources to the extent feasible. There are potential locations within the proposed HST system, however, where Section 4(f) and 6(f) resources would not be avoided. These are discussed in the environmental consequences section below.

#### B. GENERAL DESCRIPTION OF SECTION 4(f) AND 6(f) RESOURCES

Section 4(f) and 6(f) resources refer to publicly owned lands of a park, recreation area, or wildlife and waterfowl refuge; or land of a historical site of national, state, or local significance (as determined by the federal, state, regional, or local officials having jurisdiction over the park, recreation area, refuge, or site).

Historically, urban and suburban development follows the establishment of transportation corridors and facilities. In California in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, most cities formed around ports and rail lines, the primary modes for transporting people and goods. After World War II, in the early 1950s, highways and the automobile became the dominant mode of transportation, bringing urban and suburban development to areas along highways that were formerly farm-to-market roads connecting rural areas to cities.

The location and identification of Section 4(f) and 6(f) resources reflect this historic transportation corridor and urban development pattern. Today, in the urban areas that developed around the railroads at the turn of the century, there is a high concentration of historical resources. In many California cities, the railroad station is one of the oldest historical resources in the city. In the suburban and rural areas where development followed highways, some open space and natural areas have been preserved as public parks. In addition to these passive park<sup>1</sup> areas, new public parks and playgrounds have been built as part of residential developments. All of these historical resources and public parks are considered potential Section 4(f) and 6(f) resources. Therefore, in urban regions an alternative would be more likely to affect historical and archeological resources, while in suburban, wilderness, or remote areas (e.g., mountain crossings), an alternative would be more likely to affect public parks and recreation lands, and wildlife and waterfowl refuges.

#### C. SECTION 4(f) AND 6(f) RESOURCES BY REGION

The most significant Section 4(f) and 6(f) resources in each region (except historical and archaeological resources) are identified below. (See Section 3.12, *Cultural and Paleontological Resources*, for an analysis of historical and archeological resources.)

##### Bay Area to Merced

This region includes central California from the San Francisco Bay Area (San Francisco and Oakland) south to the Santa Clara Valley and east across the Diablo Range to the Central Valley. The Bay Area to Merced region contains a wide variety of Section 4(f) and 6(f) resources,

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<sup>1</sup> *Passive park* refers to a park that is used for picnicking or passive water sports; it also describes zoos and arboretums. An *active park* is a park that includes facilities such as children's play equipment, playing fields, tennis or basketball courts, etc.

including one prominent national park (Don Edwards San Francisco Bay National Wildlife Refuge), one prominent state park (Henry W. Coe State Park), and many local parks. Historic downtown districts in Oakland and historic rail stations in San Jose, Santa Clara, and Gilroy typify many of the historical resources that can be found throughout the region. Key resources are shown in Figure 3.16-1.

#### Sacramento to Bakersfield

This region of central California includes a large portion of the Central Valley (San Joaquin Valley) from Sacramento south to Bakersfield. Resources in this region include large parks, such as Stone Lakes National Wildlife Refuge in Sacramento County and Pixley National Wildlife Refuge in Tulare County, as well as smaller state and local (city and county) parks, including Colonel Allensworth State Historical Park and the American River Parkway. In addition, there are historic properties in downtown Sacramento and in the small, older cities of the Central Valley.

#### Bakersfield to Los Angeles

This region of southern California encompasses the southern portion of the Central Valley south of Bakersfield, the mountainous areas between the Central Valley and the Los Angeles basin, and the northern portion of the Los Angeles basin from Sylmar to downtown Los Angeles. Federal, state, local, and regional Section 4(f) and 6(f) resources in this region include Fort Tejon Historical Park, Angeles National Forest, Griffith Park, Vasquez Rocks County Park, and El Pueblo de Los Angeles State Historic Park. The region also contains a large number of smaller county and city recreation resources, including active, passive, and wilderness parks. Most of the historic properties in this region are within the urban areas of Los Angeles County. Key resources are shown in Figure 3.16-2.

#### Los Angeles to San Diego via Inland Empire

This region of southern California includes the eastern portion of the Los Angeles basin from downtown Los Angeles east to the Riverside and San Bernardino areas, and south to San Diego generally along the I-215 and I-15 corridors. Local and regional parks dominate the Section 4(f) and 6(f) resources of this region. There are many local parks in this region, largely because suburban communities developed small neighborhood parks with schools around the highway and rail alignments. Federal and regional resources identified in this area include the Riverside National Cemetery, Cleveland National Forest, Santa Margarita Ecological Reserve, and Old Town San Diego State Recreation Area.

#### Los Angeles to San Diego via Orange County

This region includes the western portion of the Los Angeles basin between downtown Los Angeles and Los Angeles International Airport (LAX) and the coastal areas of southern California between Los Angeles and San Diego, generally following the existing Los Angeles to San Diego via Orange County (LOSSAN) rail corridor. Similar to the Inland Empire area discussed above, the LOSSAN corridor Section 4(f) and 6(f) resources are predominantly local parks. This region includes older coastal cities, however, and several areas have a high number of historic properties listed on the NRHP and the CRHR.

### **3.16.3 Environmental Consequences**

The identification of Section 4(f) and 6(f) resources could result in significant differences among the alignment options, and between the Modal and HST Alternatives, because of the potential disruptions and costs associated with the avoidance, minimization, and possible need to mitigate impacts on such

resources. These potential impacts could range from temporary construction impacts to the acquisition<sup>2</sup> of Section 4(f) and 6(f) resources.

#### A. EXISTING CONDITIONS COMPARED TO NO PROJECT ALTERNATIVE

The existing conditions are based on transportation infrastructure that was identified as part of the alternatives definition process. The No Project Alternative is based on existing conditions and the funded and programmed transportation improvements that are projected to be developed and in operation by 2020. It is not possible as part of this study to identify or quantify the potential uses and impacts expected to occur by 2020 with implementation of the No Project Alternative. Rather, it is assumed that the improvements to be developed and implemented under the No Project Alternative would undergo typical design and construction practices that would avoid or greatly limit potential impacts. Additionally, each improvement associated with the No Project Alternative will be subject to a project-level environmental document that will identify potential uses and impacts, as well as measures to avoid, minimize, or mitigate the impacts. Although it is expected that there may be additional changes in conditions by 2020, it would be speculative to attempt to estimate or quantify such changes. Thus, no impacts are quantified under the No Project Alternative.

#### B. NO PROJECT ALTERNATIVE COMPARED TO MODAL AND HIGH-SPEED TRAIN ALTERNATIVES

The No Project Alternative is the assumed 2020 condition, as described above. Any potential impacts associated with the Modal or HST Alternatives would occur in addition to the impacts associated with the No Project Alternative. For this analysis, the difference in impacts between the Modal and HST Alternatives relative to the No Project Alternative (existing conditions in this case) are compared.

The Modal Alternative, which would result in expansion of existing highway and airport networks, has a greater potential than the HST Alternative to impact Section 4(f) and 6(f) resources (particularly parks and recreation areas) because it would follow and expand existing transportation facilities, typically in areas where urban growth has already expanded to the edges of these facilities. In contrast, the HST Alternative would generally have fewer potential impacts on Section 4(f) and 6(f) resources because the proposed HST alignment, stations, and other facilities could be planned and located around, above, or below an identified resource to avoid or minimize potential impacts. As shown in Table 3.16-2, the Modal Alternative would potentially result in at least 45 more high impacts on Section 4(f) and 6(f) resources than the HST Alternative. Only in the Bakersfield to Los Angeles region would the proposed HST Alternative potentially result in more potential impacts on Section 4(f) and 6(f) resources (19) than the Modal Alternative (11). This is because the HST Alternative in that region would traverse more urban areas than the Modal Alternative, which would be located outside of major urban centers, and because the HST Alternative in that region would include a straighter alignment that would traverse several Section 4(f) and 6(f) resources that the Modal Alternative could avoid.

Except in the Bay Area, where the HST alignment on the Caltrain corridor travels within the existing right-of-way and consequently has few direct impacts, the Modal and HST Alternatives are estimated to have approximately the same potential impact on known and potential historical and archeological resources, primarily because these resources are generally located in urban centers where the range of possible alignment and station options is limited. (A detailed analysis of historical and archeological resources is found in Section 3.12, *Cultural and Paleontological Resources*.)

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<sup>2</sup> In this context, *acquisition* means that a Section 4(f) or 6(f) resource would be directly affected by the proposed project, and the value of the resource or a portion thereof would be lost as a result of the project.

**Table 3.16-2<sup>a</sup>**  
**Number of Potential High Impacts on Section 4(f) and 6(f) Resources by Region and Alternative**

Region and Alternative	Potential High Impacts on Section 4(f) Resources	Potential High Impacts on Section 6(f) Resources	Total Potential High Impacts
<b>Bay Area to Merced</b>			
Modal	42	1	43
High-Speed Train	3–7	0–1	3–8
<b>Sacramento to Bakersfield</b>			
Modal	21	2	23
High-Speed Train	13–18	1–2	14–20
<b>Bakersfield to Los Angeles</b>			
Modal	8	3	11
High-Speed Train	5–17	0–2	5–19
<b>Los Angeles to San Diego via Inland Empire</b>			
Modal	42	0	42
High-Speed Train	28–38	0–1	28–39
<b>Los Angeles to San Diego via Orange County</b>			
Modal	18	2	20
High-Speed Train	6–9	0	6–9
Conventional <sup>b</sup>	28	4	32
High Infrastructure			
Low Infrastructure	30	3	33
<b>Alternative Total</b>			
Modal	132	8	140
High-Speed Train	54–89	1–6	55–85 <sup>c</sup>
<sup>a</sup> The No Project Alternative is not included in this table because the existing conditions are the baseline to which the Modal and HST Alternatives are compared. Potential impacts on historical and archeological resources are not included here because they are discussed in detail in Section 3.12. High impacts assume resource is located within 150 ft (46 m) of improvement. <sup>b</sup> The conventional rail LOSSAN corridor is shown for comparison but not included in the total potential uses. Source: Parsons Brinckerhoff 2003.			

### 3.16.4 Comparison of Alternatives by Region

This section outlines the potential impacts of the Modal and HST Alternatives on Section 4(f) and 6(f) resources by region. Differences in potential impacts between HST alignment options are also discussed. Appendix 3.16-A provides summary tables showing a more detailed comparison of the different alternatives and their potential impacts on Section 4(f) and 6(f) resources.

#### A. BAY AREA TO MERCED

This region contains a variety of Section 4(f) and 6(f) resources, including a federal and a state park—Don Edwards San Francisco Bay National Wildlife Refuge and Henry W. Coe State Park—and



approximately 35 local parks that could be affected. In addition, historical resources in the older cities could be affected.

#### Modal Alternative

The Modal Alternative could impact 42 Section 4(f) and 6(f) resources, primarily local and regional parks adjacent to US-101 and I-880 in the heavily urbanized Bay Area. In addition, the O'Neill Forebay and Wildlife Area near Los Banos could be affected. The Modal Alternative would result in a higher number of potential impacts than the HST Alternative in this region.

#### High-Speed Train Alternative

The HST Alternative could impact between three and eight Section 4(f) and 6(f) resources, depending on the alignment option. Although approximately 25 local and regional parks are very close to the proposed HST alignment option, the HST would be in the existing railroad corridor as it passes most of these resources between San Francisco and San Jose. However, elsewhere in this region, where the HST alignment options would be adjacent to existing transportation corridors or in a new right-of-way, there would be more potential impacts on parklands (Henry W. Coe State Park) and wildlife reserves (Don Edwards San Francisco Bay National Wildlife Refuge). The HST Alternative would potentially affect more historical resources than the Modal Alternative in this region, primarily in the Bay Area. Overall however, the HST Alternative would result in fewer potential impacts on Section 4(f) and 6(f) resources than the Modal Alternative.

#### High-Speed Train Alignment Options Comparison

The Caltrain alignment option between San Francisco and San Jose would potentially impact fewer Section 4(f) and 6(f) resources than the East Bay alignment options. The primary reason for this difference is that the HST would travel within the Caltrain right-of-way, and therefore not directly affect any Section 4(f) or 6(f) resources in and along the Caltrain corridor.

Between Oakland and San Jose, the Hayward/Niles/Mulford alignment option has the potential to impact the Don Edwards San Francisco Bay National Wildlife Refuge because the existing railroad right-of-way is not consistently wide enough for the HST. Given the high sensitivity of this area and the concerted effort of the state and federal governments, many nonprofit organizations, and individuals to restore this area, it potentially may be difficult to identify meaningful mitigation measures for this alignment option (see Figure 3.16-1). The Hayward/I-880 alignment option, which serves the same corridor, would potentially affect some local and regional resources (such as Marshall Park in Fremont), but it would not directly impact the highly sensitive Don Edwards San Francisco Bay National Wildlife Refuge.

From San Jose to Merced, the minimize tunnel option of the Diablo Range direct northern alignment could impact Henry W. Coe State Park. As with the Mulford alignment option, it may be difficult to identify meaningful mitigation measures for the impacts of the minimize tunnel option on the state park. Henry W. Coe State Park contains one of the last large public wilderness areas in this part of northern California. Thus, even with the significant tunneling included in the minimize tunnel option, the option could impact wildlife and wildlife habitat. There are several potential avoidance options under consideration. These include a tunnel under the park that would avoid use of the park, an alignment option north of the park that avoids the park, and the Pacheco Pass alignment options. While the southern crossing options (Pacheco Pass) to Gilroy would not affect as many Section 4(f) or 6(f) resources as the northern alignment options, one of them would travel through Gilroy where it could affect the historic Gilroy train station and other historic structures. The eastern end of the northern alignment may result in potential impacts on McConnell State Recreation Area.

## B. SACRAMENTO TO BAKERSFIELD

The HST Alternative has the potential to affect fewer individual recreational resources than the Modal Alternative in this region. Because the Modal Alternative footprint traverses large federal and state resources in the Sacramento to Stockton and Merced to Fresno corridors, it would be likely to affect more Section 4(f) and 6(f) acreage than the HST Alternative. In downtown Sacramento, where there is a high concentration of historical resources, both the Modal and HST Alternatives would have potential impacts on historical and archeological resources.

### Modal Alternative

The Modal Alternative could affect 23 resources, including the Stone Lakes National Wildlife Refuge along I-5 in Sacramento County and several state and federal parklands along SR-152 west of Fresno in Merced and Madera Counties. In addition, the Modal Alternative could affect smaller local (city and county) parks. The Modal Alternative could affect more Section 4(f) and 6(f) resources than the HST Alternative in this region.

### High-Speed Train Alternative

The vast majority of the between 14 and 20 Section 4(f) and 6(f) resources potentially affected by the HST Alternative are local (city and county) parks, although Burlington Northern Santa Fe (BNSF) alignment options in the Tulare to Bakersfield corridor could also affect the Pixley National Wildlife Refuge and the Colonel Allensworth State Historical Park. The HST Alternative would affect fewer Section 4(f) and 6(f) resources than the Modal Alternative.

### High-Speed Train Alignment Options Comparison

In the Sacramento to Stockton corridor, there is little distinction between HST alignment options with respect to Section 4(f) and 6(f) potential impacts. Alignment options to the downtown Sacramento Valley Station would potentially impact the American River Parkway. There are generally more local (city and county) parks along the Union Pacific Railroad (UPRR) alignment than the Central California Traction (CCT) alignment option in this corridor.

From Modesto to Merced, the UPRR alignment has the potential to affect more Section 4(f) and 6(f) resources than the BNSF alignment because the Stanislaus County Fairgrounds, Broadway Park, and Central Park in Turlock are adjacent to the UPRR right-of-way.

Between Madera and Fresno, there may be potential impacts on public parkway lands managed by the state San Joaquin River Conservancy along the San Joaquin River.

Section 4(f) and 6(f) resources are present from Tulare to Bakersfield, but both the UPRR and BNSF alignments have the potential to affect the same number of resources. The proposed Golden State Station would potentially affect the Metro Recreation Center, which sits adjacent to the UPRR alignment.

## C. BAKERSFIELD TO LOS ANGELES

The Section 4(f) and 6(f) resources that dominate this region are the Angeles National Forest and state and county parks that cross the Tehachapi Mountains. In addition, there are many smaller county and city parks, as well as historic properties in the urban areas of Los Angeles County.

### Modal Alternative

The Modal Alternative would potentially affect ten Section 4(f) and 6(f) resources in this region. The highway portion of the Modal Alternative would potentially affect Fort Tejon State Historical Park, Griffith Park, and Vasquez Rocks County Park. The airport portion (Burbank Airport) of the



Modal Alternative would potentially affect Sun Valley Park and Recreation Center in the City of Los Angeles. The Modal Alternative would potentially affect the same number of Section 4(f) and 6(f) historical and archeological resources as the HST Alternative.

#### High-Speed Train Alternative

Since the HST Alternative would use essentially the same transportation corridors from Bakersfield to Los Angeles as the Modal alternative, the HST and Modal Alternatives would result in a similar number of potential impacts in the region.

#### High-Speed Train Alignment Options Comparison

The alignment options for the HST Alternative from Bakersfield to Los Angeles would result in a considerable range of potential impacts. Between Bakersfield and the Sylmar Station, the I-5 alignment option would result in the most potential impacts (eight) of the three alignment options. Some of the resources that could be impacted include Fort Tejon State Historical Park, Angeles National Forest, Pyramid Lake, and Hungry Valley State Vehicular Recreation Area (see Figure 3.16-2).

The SR-58/Soledad Canyon alignment option would result in the fewest potential impacts (one). From Sylmar to downtown Los Angeles, the Metrolink/UPRR and I-5 alignment options would result in similar potential impacts. The potential impacts range from five to six county or local parks. The potential for impacts on historical resources increases the closer the alignment options get to Los Angeles; however, impacts on historical resources is not a differentiating factor for the alignment options in this region.

### D. LOS ANGELES TO SAN DIEGO VIA INLAND EMPIRE

Section 4(f) and 6(f) resources identified in this region that could be affected were generally regional and local parks and recreation areas.

#### Modal Alternative

The Modal Alternative could affect approximately 42 Section 4(f) and 6(f) resources in this region. The majority of these resources would be local and regional parks, with the exception of Riverside National Cemetery and Cleveland National Forest. The Modal Alternative would result in slightly more potential impacts than the HST Alternative.

#### High-Speed Train Alternative

Similar to the Modal Alternative, the HST Alternative could impact county and local parks. The HST Alternative could potentially impact as few as 28 resources, compared to 42 for the Modal Alternative. The HST Alternative would result in fewer potential impacts than the Modal Alternative.

#### High-Speed Train Alignment Options Comparison

Section 4(f) and 6(f) resources are fairly evenly distributed in the region. Therefore, the impacts of the alignment options on Section 4(f) and 6(f) resources in this region would be similar. One exception is between Mira Mesa and San Diego, where the alignment option that would follow I-15 to Qualcomm Stadium would potentially impact nine Section 4(f) resources, while the other alignment options, LOSSAN and LOSSAN via Carroll Canyon to downtown San Diego, would potentially impact five resources, respectively.

## E. LOS ANGELES TO SAN DIEGO VIA ORANGE COUNTY

The Section 4(f) and 6(f) resources identified in this region are primarily local and regional parks, and several state beaches. The Modal Alternative would include the acquisition of new right-of-way between Los Angeles and San Diego, which would potentially affect 20 Section 4(f) and 6(f) resources along the alignment. Overall, there is no significant difference in the number of resources that would be potentially affected by the Modal and HST Alternatives. The proposed HST alignment is within the existing right-of-way, but there is a high density of parks and beaches adjacent to the LOSSAN corridor alignment that could be affected. Much as in the Bay Area, the majority of these alternative alignments would occur along existing transportation/rail corridors, and the potential for impacts would be temporary or could be reduced by mitigation strategies.

### Modal Alternative

The Modal Alternative (20 potential impacts) would result in more impacts on Section 4(f) and 6(f) resources than the overall HST Alternative (six to nine potential impacts). Those resources that are potentially affected are primarily local parks. Between Los Angeles Union Station (LAUS) and Irvine, however, the Modal Alternative would potentially affect more Section 4(f) and 6(f) resources than the HST alignment options. In general, the Modal Alternative would result in twice as many impacts as the HST Alternative in this region.

### High-Speed Train Alternative

Although construction of the conventional rail portion of the HST Alternative is expected to occur within 150 ft (46 m) of some parks and refuge lands, the majority of the activities would be within the existing UPRR and LOSSAN rail corridors. The railroad was originally constructed in the 1800s, before most parks and conservation lands were established around it. Tunneling options in several sections of the corridor could reduce or avoid impacts on some of the Section 4(f) and 6(f) resources. Because tunneling could result in the removal of existing above-ground track, new parklands could potentially be created for public use, which would result in beneficial impacts on Section 4(f) and 6(f) properties. Specific areas where this could occur include the Del Mar Bluffs area, the San Clemente coastal area, and the San Juan Capistrano area. This would need to be evaluated in detail during project-level studies.

### High-Speed Train Alignment Options Comparison

The two alignment options and proposed station locations between LAUS and Irvine are not differentiated by potential impacts on Section 4(f) and 6(f) resources because there are few such resources in this industrial area. The UPRR alignment would potentially impact three Section 4(f) and 6(f) resources, and the LOSSAN corridor would potentially impact five of these resources.

## **3.16.5 Impact Avoidance Strategies, Including Alternatives Screened from Further Consideration**

Throughout the environmental review process, and particularly in the identification of potential HST alignment and station options, the California High Speed Rail Authority (Authority) has emphasized minimizing harm to the environment. One of the Authority's policies, as stated in Chapter 1, is "to maximize the use of existing transportation corridors and right-of-way to the extent feasible." This policy is one of the primary impact avoidance strategies for the proposed HST system. This policy and the other goals implicit in the HST project purpose and need were used in the scoping process and successive screening stages of the program environmental process (see Chapter 2, *Alternatives*). The screening evaluation considered the potential impacts of the various alignments and all the environmental parameters, including impacts on Section 4(f) and 6(f) resources. Based on the overall screening evaluation, several segments in the Bakersfield to Los Angeles region were removed from further consideration, in part due to potential impacts on Section 4(f) and 6(f) resources (see Figure 3.16-2). The screening alignment studies resulted in realignment of the Tehachapi segment of the HST Alternative

to avoid impacts on resources, including parks, in the town of Tehachapi. In the Bay Area, different alignment options were developed to avoid Henry W. Coe State Park (see Figure 3.16-1). At the end of this process, at least two viable alignment options were identified for each segment of the entire HST system, except for a few cases where clear and documented data were available to limit the options to a single alignment. The screening recommendations were developed by the Authority and the Federal Rail Authority, with input from federal cooperating agencies; state, regional, and local agencies; and members of the public.

### **3.16.6 Avoidance Alternatives or Reasons for No Prudent or Feasible Alternative for Use of Section 4(f) or 6(f) Resource**

If the proposed HST system is approved to go forward, the design studies and project-level environmental review for a proposed HST system would compare specific alignment alternatives selected for further study and seek additional opportunities to avoid or substantially reduce potential adverse impacts of these alternatives on identified Section 4(f) and 6(f) resources.

Potential direct impacts on many Section 4(f) and 6(f) resources could be avoided by remaining within existing railroad right-of-way, or moving horizontally within the right-of-way, where feasible. Avoidance of Section 4(f) and 6(f) resources would be further explored during project-specific design and environmental evaluation. Project-level evaluations of Section 4(f) and 6(f) resource use would include documentation of the avoidance alternatives and/or reasons for no prudent or feasible alternative for impacts on Section 4(f) and 6(f) resources for the segments being studied.

There are several potential Section 4(f) and 6(f) recreation resources and cultural resources within or immediately adjacent to the proposed alignments for the Modal and HST Alternatives. Avoidance of these resources would be possible in many cases by redesigning or narrowing the disturbance limits, in combination with noise walls and/or visual screening. However, there may be locations where avoidance could not be achieved, possibly for one of more of the following reasons.

- Shifting the centerline (and the whole facility) to avoid one or more resources could result in greater potential impacts on other resources. For example, segments of some highways include a number of very large Section 4(f) and 6(f) resources on both sides. It may not be possible to fully avoid use of all of these resources under the Modal Alternative, assuming that reconstruction of the facility in a tunnel section is not feasible.
- The HST alignment options cannot be shifted easily because of the large turning radii required for HST operations and other design considerations. A minor shift in one location on the HST alignment could result in a substantial shift elsewhere on the alignment, potentially resulting in impacts on other Section 4(f) and 6(f) resources.
- Measures to reduce potential proximity impacts, such as noise walls, could result in potential adverse visual impacts on Section 4(f) and 6(f) resources. During project-level review, potential measures to minimize harm at each potentially affected resource would need to be analyzed in consultation with the owners of the resources to ensure that measures to minimize harm would not adversely affect the values of the Section 4(f) and 6(f) resources.

### **3.16.7 Mitigation Strategies**

Possible mitigation measures for potential impacts on Section 4(f) and 6(f) resources include sound walls, visual buffers/landscaping, and modification of transportation access to/egress from the resource. Some of these measures could include design modifications or controls on construction schedules, phasing, and activities. Planning efforts would be undertaken as a part of the project-level documentation phase to minimize harm to the Section 4(f) and 6(f) resources. This is anticipated to include measures that may be taken to mitigate potential adverse environmental impacts, such as beautification measures,

replacement of land or structures or their equivalents on or near their existing site(s), tunneling, cut and cover, cut and fill, treatment of embankments, planting, screening, creating wildlife corridors, acquisition of land for preservation, installation of noise barriers, and establishment of pedestrian or bicycle paths. Other potential mitigation strategies could be identified during the public input process.

### 3.16.8 Subsequent Analysis

The Section 4(f) and 6(f) evaluation process would be more focused at the project-specific level. Given the broad focus of analysis for this Program EIR/EIS, the primary goal for project-level analysis would be to identify Section 4(f) and 6(f) resources and potential impacts in greater detail, to identify the existence of potential prudent and feasible alternatives, and to identify and analyze potential mitigation measures.

The following items would be included in the Section 4(f) and 6(f) evaluations at the project level.

- Detailed physical descriptions of a specific portion of the proposed HST system (including plans and profiles).
- Updated list of all Section 4(f) and 6(f) recreation resources in proximity to the proposed alignment centerlines and project components, using the most recent mapping available such as annually updated Thomas Bros. maps, general plans, state Web sites, local jurisdiction Web sites, etc.
- Updated list of NRHP-listed and NRHP-eligible cultural resources. As part of detailed cultural resources studies required for project-level environmental review (see Section 3.12.7), all previously identified potentially eligible resources would be further evaluated to determine NRHP eligibility. NRHP-eligible resources would be carried forward to the project-level Section 4(f) and 6(f) evaluation. Field reconnaissance would be needed to complete the required Section 4(f) inventory sheets.
- List of the CRHR-listed and eligible resources and field reconnaissance to provide a complete inventory and description of these resources.
- Descriptions of uses and functions of each Section 4(f) and 6(f) resource, including location map; size; services and facilities; annual patronage; unique qualities; relationship to other lands in the project vicinity; owner/operator; other relevant information regarding the resource; and explanation of the significance of the properties as determined by federal, state, regional, or local officials with jurisdiction over the resource.
- Detailed descriptions of the proposed uses of and potential impacts on Section 4(f) and 6(f) resources and of the methods used to identify them. Specific potential impacts on each resource would be identified, including proximity impacts as a result of impacts on ambient noise, air quality, transportation, and visual resources.
- Identification and refinement of strategies to avoid or minimize use of and impacts on Section 4(f) and 6(f) resources by narrowing rights-of-way/disturbance limits, realigning/relocating project features, and developing other alignment adjustments. These strategies would analyze, as appropriate, the technical feasibility of possible mitigation, including cost estimates with figures showing percentage differences in total project costs, possibility of community or ecosystem disruption, and other potential significant adverse environmental impacts of each alternative; and show the financial, social, or ecological costs or potential adverse environmental impacts of each alternative, as well as any unique problems and extraordinary magnitudes of impacts.
- Documentation of consultation with the affected local jurisdictions and owners/operators of the identified Section 4(f) and 6(f) resources. This would include documentation of concurrence or efforts to obtain concurrence from the public official or officials having jurisdiction over the Section 4(f) and 6(f) resources and documentation of the planning to minimize harm to the affected resources. (Refer to Chapter 9, Persons and Organizations Contacted, for additional discussion of

these consultations.) In addition to the mitigation proposed, the Section 4(f) and 6(f) evaluation should document the National Park Service's tentative position relative to any proposed Section 6(f) conversion and should address the need for replacement lands under federal and California law (Federal Highway Administration 1987).